

# [11g RAC 설치] ASM Disk Group 생성

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## VII. ASM Disk Group 생성

ASM Disk Group 생성 목차

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### [ 1. ASMCA 실행 ]

Data를 저장할 공간과 Fast Recovery Area를 위한 ASM 디스크 그룹을 만들기 위해 asmca를 실행합니다.

```
[grid@+ASM1 ~]$ vi .bash_profile
----- 한글 깨지지 않게 export 넣어두기 -----
export LANG=C
export LC_ALL=C
-----
[grid@+ASM1 ~]$ source .bash_profile
```

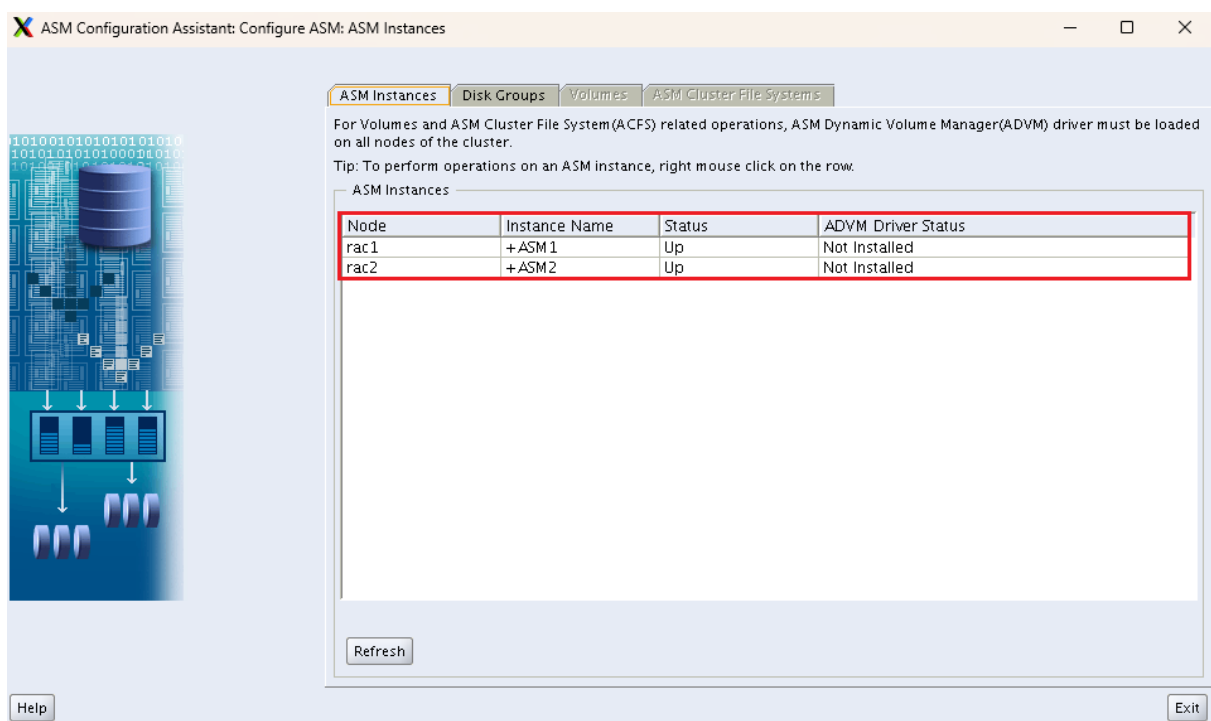
```
export DISPLAY=192.168.19.25:0.0
export LANG=C
export LC_ALL=C
```

- Node1 의 Grid 에서 수행

```
$ asmca
```

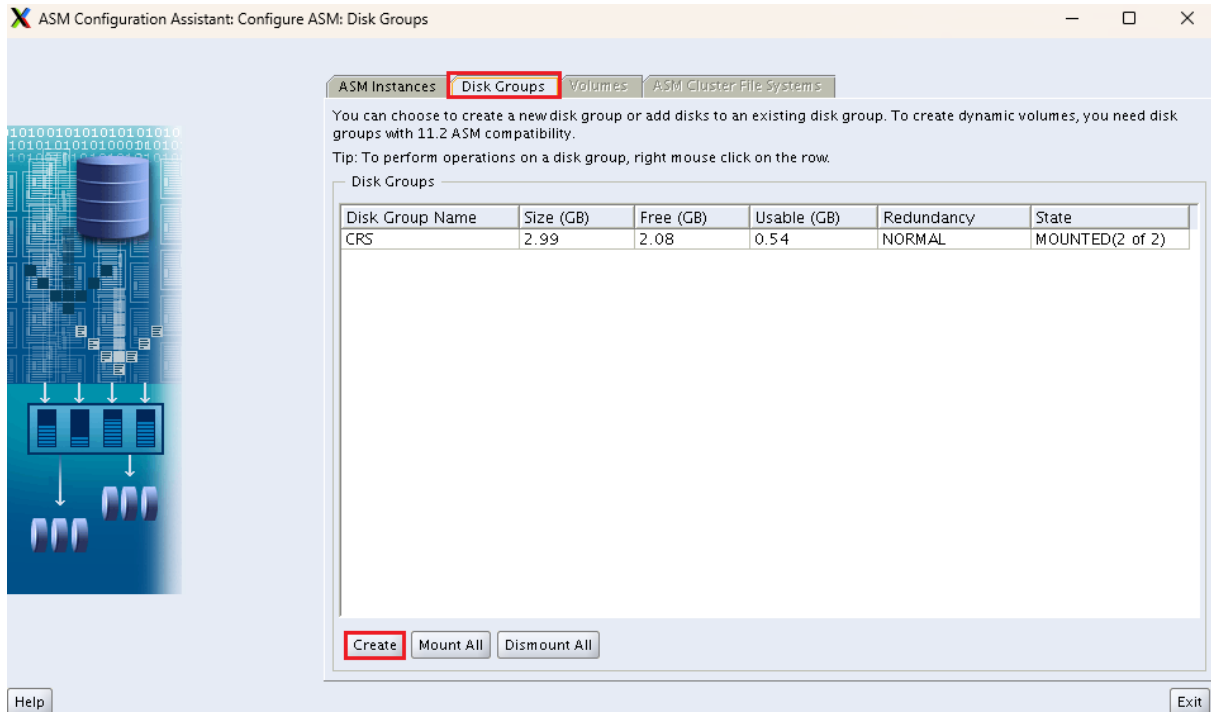
## [ 2. DATA 디스크 그룹 생성 ]

ASM instances 탭 - rac1, rac2가 잘 작동 중인지 확인합니다.



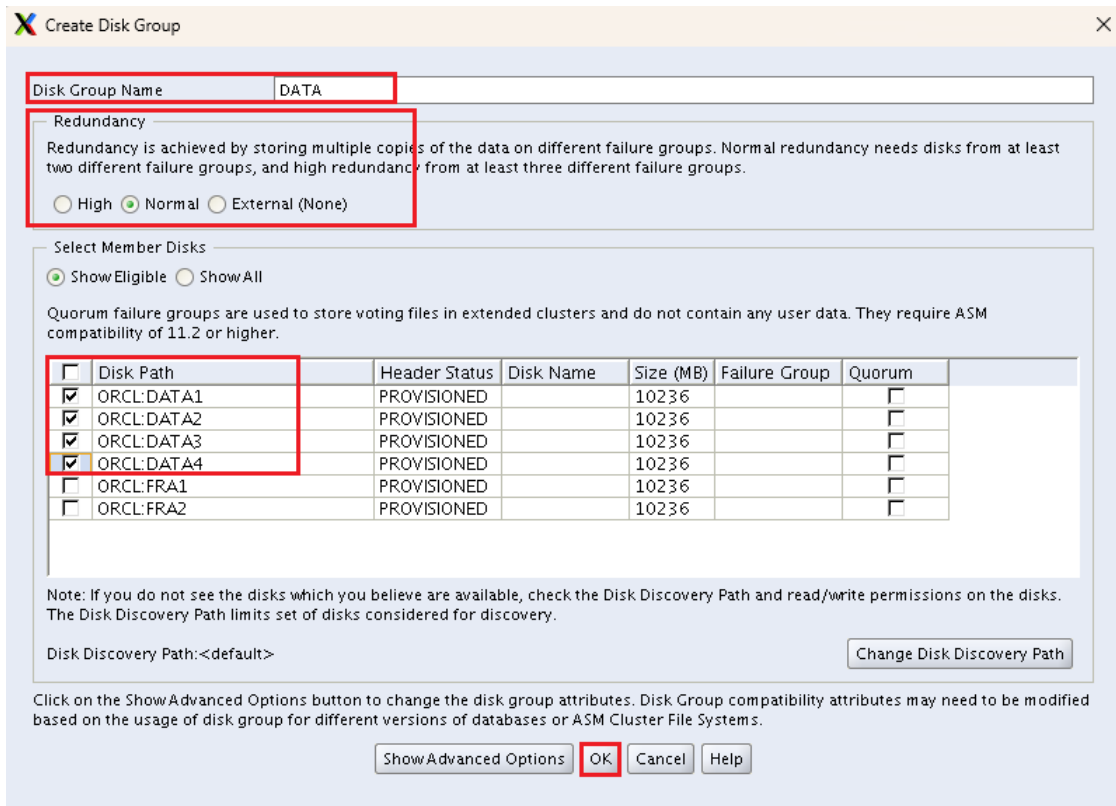
먼저 DATA 디스크 그룹을 생성하겠습니다.

“Disk Group(디스크 그룹)” 탭을 선택 > 디스크 그룹 섹션의 좌측 하단에 있는 “Create(생성)”을 클릭합니다.



아래의 항목들에 맞게 구성 > 확인

- Disk Group Name(디스크 그룹 이름) : DATA
- Redundancy(중복성) : Normal(보통)
- Select Member Disks(멤버 디스크 선택) : ORCL:DATA1 ~ ORCL:DATA4 까지 선택



▼ 생성 완료 메시지

**Create Disk Group**

Disk Group Name:

**Redundancy**  
 Redundancy is achieved by storing multiple copies of the data on different failure groups. Normal redundancy needs disks from at least two different failure groups, and high redundancy from at least three different failure groups.  
☐ High ☒ Normal ☐ External (None)

**Select Member Disks**  
☒ Show Eligible ☐ Show All  
 Quorum failure group compatibility of 11.2 or higher

<input type="checkbox"/>	Disk Path
<input checked="" type="checkbox"/>	ORCL:DATA1
<input checked="" type="checkbox"/>	ORCL:DATA2
<input checked="" type="checkbox"/>	ORCL:DATA3
<input checked="" type="checkbox"/>	ORCL:DATA4
<input type="checkbox"/>	ORCL:FRA1
<input type="checkbox"/>	ORCL:FRA2

Note: If you do not see the disks which you believe are available, check the Disk Discovery Path and read/write permissions on the disks. The Disk Discovery Path limits set of disks considered for discovery.

Disk Discovery Path: <default> Change Disk Discovery Path

Click on the Show Advanced Options button to change the disk group attributes. Disk Group compatibility attributes may need to be modified based on the usage of disk group for different versions of databases or ASM Cluster File Systems.

Show Advanced Options OK Cancel Help

**Create Disk Group**

Disk Group Name:

**Redundancy**  
 Redundancy is achieved by storing multiple copies of the data on different failure groups. Normal redundancy needs disks from at least two different failure groups, and high redundancy from at least three different failure groups.  
☐ High ☒ Normal ☐ External (None)

**Select Member Disks**  
☒ Show Eligible ☐ Show All  
 Quorum failure groups are used to store user data. They require ASM compatibility of 11.2 or higher.

<input type="checkbox"/>	Disk Path
<input checked="" type="checkbox"/>	ORCL:DATA1
<input checked="" type="checkbox"/>	ORCL:DATA2
<input checked="" type="checkbox"/>	ORCL:DATA3
<input checked="" type="checkbox"/>	ORCL:DATA4
<input type="checkbox"/>	ORCL:FRA1
<input type="checkbox"/>	ORCL:FRA2

Note: If you do not see the disks which you believe are available, check the Disk Discovery Path and read/write permissions on the disks. The Disk Discovery Path limits set of disks considered for discovery.

Disk Discovery Path: <default> Change Disk Discovery Path

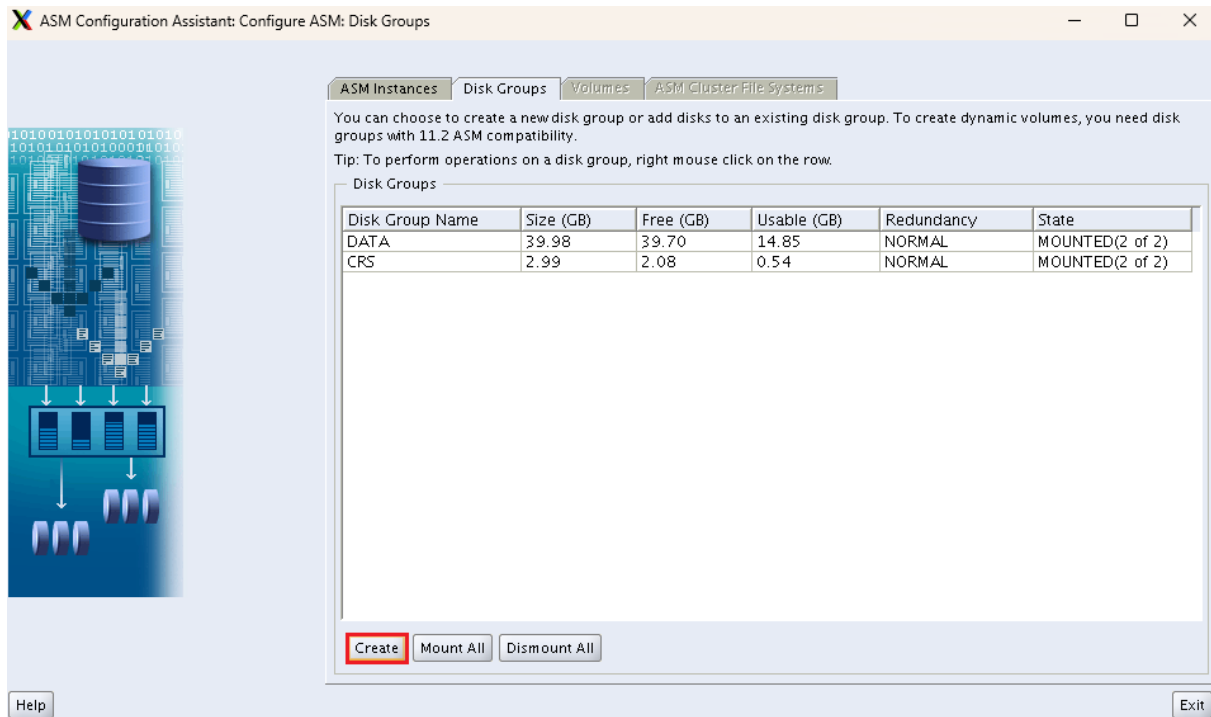
Click on the Show Advanced Options button to change the disk group attributes. Disk Group compatibility attributes may need to be modified based on the usage of disk group for different versions of databases or ASM Cluster File Systems.

Show Advanced Options OK Cancel Help

**Disk Group: Creation**  
 Disk Group DATA created successfully.  
OK

### [ 3. RECO 디스크 그룹 혹은 FRA 디스크 그룹 생성 ]

RECO 디스크 그룹 혹은 FRA 디스크 그룹 생성을 위해 다시 “Create(생성)”을 클릭합니다.



Disk Path(디스크 경로)에 ORCL:RECO 가 뜨면, Disk Group Name을 “RECO”로 입력하고, ORCL:FRA가 뜨면 “FRA”로 입력하세요.

**Create Disk Group**

Disk Group Name:

**Redundancy**  
 Redundancy is achieved by storing multiple copies of the data on different failure groups. Normal redundancy needs disks from at least two different failure groups, and high redundancy from at least three different failure groups.

☐ High ☒ Normal ☐ External (None)

**Select Member Disks**  
☒ Show Eligible ☐ Show All

Quorum failure groups are used to store voting files in extended clusters and do not contain any user data. They require ASM compatibility of 11.2 or higher.

<input type="checkbox"/> Disk Path	Header Status	Disk Name	Size (MB)	Failure Group	Quorum
<input type="checkbox"/> ORCL:FRA1	PROVISIONED		10236		<input type="checkbox"/>
<input type="checkbox"/> ORCL:FRA2	PROVISIONED		10236		<input type="checkbox"/>

Note: If you do not see the disks which you believe are available, check the Disk Discovery Path and read/write permissions on the disks. The Disk Discovery Path limits set of disks considered for discovery.

Disk Discovery Path: <default> Change Disk Discovery Path

Click on the Show Advanced Options button to change the disk group attributes. Disk Group compatibility attributes may need to be modified based on the usage of disk group for different versions of databases or ASM Cluster File Systems.

Show Advanced Options OK Cancel Help

아래의 항목들에 맞게 구성 > OK 확인

- Disk Group Name(디스크 그룹 이름) : FRA (혹은 RECO)
- Redundancy(중복성) : External(None) = 없음
- Select Member Disks(멤버 디스크 선택) : ORCL:FRA1, ORCL:FRA2 선택

**Create Disk Group**

Disk Group Name:

Redundancy

Redundancy is achieved by storing multiple copies of the data on different failure groups. Normal redundancy needs disks from at least two different failure groups, and high redundancy from at least three different failure groups.

☐ High ☐ Normal ☒ External (None)

Select Member Disks

☒ Show Eligible ☐ Show All

Quorum failure groups are used to store voting files in extended clusters and do not contain any user data. They require ASM compatibility of 11.2 or higher.

<input type="checkbox"/>	Disk Path	Header Status	Disk Name	Size (MB)	Quorum
<input checked="" type="checkbox"/>	ORCL:FRA1	PROVISIONED		10236	<input type="checkbox"/>
<input checked="" type="checkbox"/>	ORCL:FRA2	PROVISIONED		10236	<input type="checkbox"/>

Note: If you do not see the disks which you believe are available, check the Disk Discovery Path and read/write permissions on the disks. The Disk Discovery Path limits set of disks considered for discovery.

Disk Discovery Path: <default> Change Disk Discovery Path

Click on the Show Advanced Options button to change the disk group attributes. Disk Group compatibility attributes may need to be modified based on the usage of disk group for different versions of databases or ASM Cluster File Systems.

Show Advanced Options OK Cancel Help

FRA 디스크 그룹이 성공적으로 생성된 메시지가 출력되면 OK(확인)을 클릭합니다.

**Create Disk Group**

Disk Group Name:

Redundancy

Redundancy is achieved by storing multiple copies of the data on different failure groups. Normal redundancy needs disks from at least two different failure groups, and high redundancy from at least three different failure groups.

☐ High ☐ Normal ☒ External (None)

Select Member Disks

☒ Show Eligible ☐ Show All

Quorum failure groups are used to store voting files in extended clusters and do not contain any user data. They require ASM compatibility of 11.2 or higher.

<input type="checkbox"/>	Disk Path	Header Status	Disk Name	Size (MB)	Quorum
<input checked="" type="checkbox"/>	ORCL:FRA1	PROVISIONED		10236	<input type="checkbox"/>
<input checked="" type="checkbox"/>	ORCL:FRA2	PROVISIONED		10236	<input type="checkbox"/>


Note: If you do not see the disks which you believe are available, check the Disk Discovery Path and read/write permissions on the disks. The Disk Discovery Path limits set of disks considered for discovery.

Disk Discovery Path: <default> Change Disk Discovery Path

Click on the Show Advanced Options button to change the disk group attributes. Disk Group compatibility attributes may need to be modified based on the usage of disk group for different versions of databases or ASM Cluster File Systems.

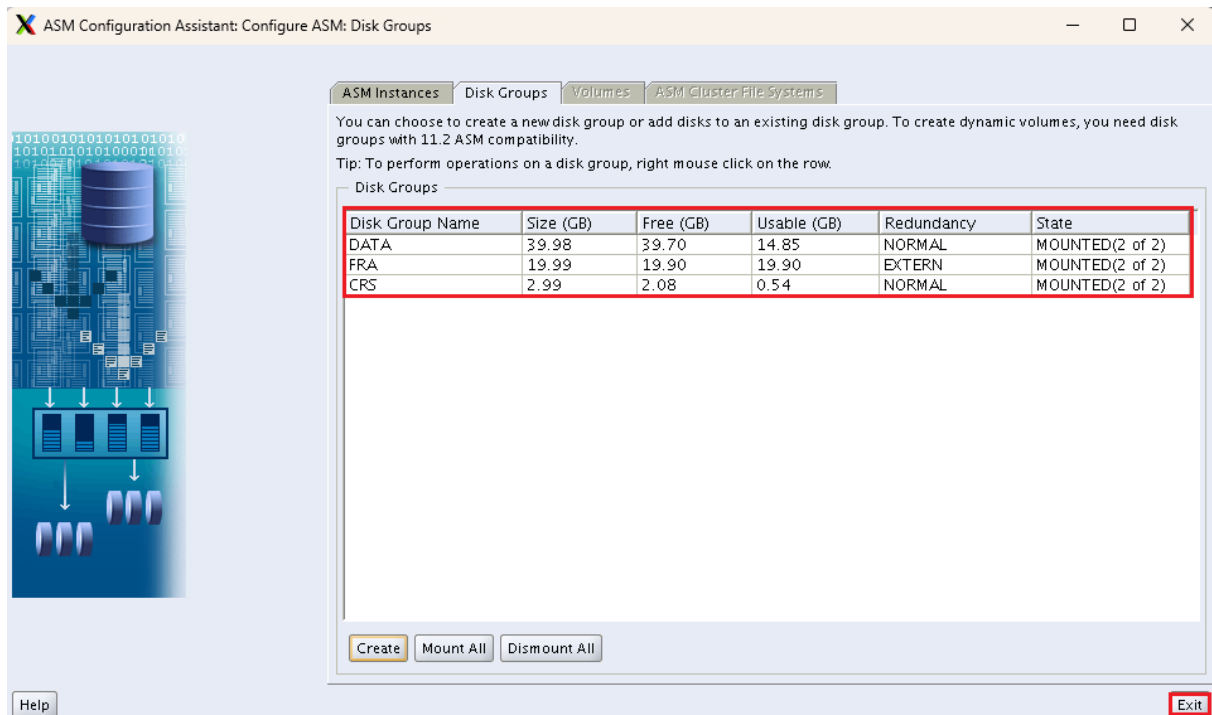
Show Advanced Options OK Cancel Help

**Disk Group: Creation**

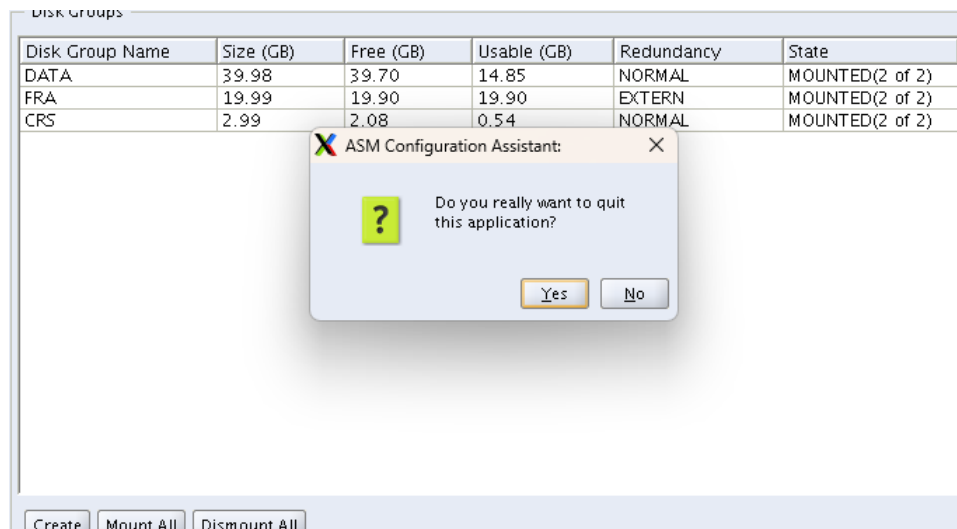
 Disk Group FRA created successfully.

OK

구성이 완료 되었으면 DATA, FRA, CRS 가 잘 생성되었는지 확인 > Exit(종료) 클릭



응용 프로그램 종료를 확인하는 메시지가 나오면 Yes(예) 클릭합니다.



디스크 그룹 DATA와 FRA(혹은 RECO)가 생성된 것을 확인할 수 있습니다.

```
# crsctl stat res -t
```



```
[root@rac1 ~]# crsctl stat res -t
```

NAME	TARGET	STATE	SERVER	STATE_DETAILS
Local Resources				
ora.CRS.dg	ONLINE	ONLINE	rac1	
	ONLINE	ONLINE	rac2	
ora.DATA.dg	ONLINE	ONLINE	rac1	
	ONLINE	ONLINE	rac2	
ora.FRA.dg	ONLINE	ONLINE	rac1	
	ONLINE	ONLINE	rac2	
ora.LISTENER.lsnr	ONLINE	ONLINE	rac1	
	ONLINE	ONLINE	rac2	
ora.asm	ONLINE	ONLINE	rac1	Started
	ONLINE	ONLINE	rac2	Started
ora.gsd	OFFLINE	OFFLINE	rac1	
	OFFLINE	OFFLINE	rac2	
ora.net1.network	ONLINE	ONLINE	rac1	
	ONLINE	ONLINE	rac2	
ora.ons	ONLINE	ONLINE	rac1	
	ONLINE	ONLINE	rac2	
Cluster Resources				
ora.LISTENER_SCAN1.lsnr				
1	ONLINE	ONLINE	rac1	
ora.cvu				
1	ONLINE	ONLINE	rac1	
ora.oc4j				
1	ONLINE	ONLINE	rac1	
ora.rac1.vip				
1	ONLINE	ONLINE	rac1	
ora.rac2.vip				
1	ONLINE	ONLINE	rac2	
ora.scan1.vip				
1	ONLINE	ONLINE	rac1	

```
[root@rac1 ~]#
```